NO 1 JULY 1990

Notice

1 Ad Hoc Reviewers

Neurological Progress

3 Glutamate Dysfunction and Selective Motor Neuron Degeneration in Amyotrophic Lateral Sclerosis: A Hypothesis Andreas Plaitakis, MD

Editorial

9 What's the Excitement about Excitatory Amino Acids in Amyotrophic Lateral Sclerosis? Anne B. Young, MD, PhD

Original Articles

- 12 Amyotrophic Lateral Sclerosis: Amino Acid Levels in Plasma and Cerebrospinal Fluid Thomas L. Perry, MD, Charles Krieger, MD, PhD, FRCP(C), Shirley Hansen, BA, and Andrew Eisen, MD, FRCP(C)
- 18 Abnormal Excitatory Amino Acid Metabolism in Amyotrophic Lateral Sclerosis Jeffrey D. Rothstein MD, PhI Guochuan Tsai, MD, Ralph W. Kuncl, MD, PhD, Lora Clawson, RN, BSN, David R. Cornblath, MD, Daniel B. Drachman, MD, Alan Pestronk, MD, Barbara L. Stauch, BS, and Joseph T. Coyle, MD
- 26 The Effect of Mild Hyperthermia and Hypothermia on Brain Damage Following 5, 10, and 15 Minutes of Forebrain Ischemia Hiroaki Minamisawa, MD, Maj-Lis Smith, PhD, and Bo K. Siesjö, MD, PhD
- 34 Immunohistochemical Study of Cerebral Amyloid Angiopathy. III. Widespread Alzheimer A4 Peptide in Cerebral Microvessel Walls Colocalizes with Gamma Trace in Patients with Leukoencephalopathy Harry V. Vinters, MD, Diana Lenard Secor, MS, William M. Pardridge, MD, and Françoise Gray, MD, PhD
- 43 Hereditary Motor and Sensory Neuropathies and Hereditary Spastic Paraplegia: A Magnetic Stimulation Study D. Claus, MD, H. M. Waddy, FRACP, A. E. Harding, MD, N. M. F. Murray, FRCP, and P. K. Thomas, DSc
- 50 Nationwide Survey of HTLV-I-associated Myelopathy in Japan: Association with Blood Transfusion Mitsubiro Osame, MD, Robert Janssen, MD, Hiroaki Kubota, MD, Hiroshi Nishitani, MD, Akihiro Igata, MD, Shigenobu Nagataki, MD, Masataka Mori, MD, Ikuo Goto, MD, Hiromi Shimabukuro, MD, Rima Khabbaz, MD, and Jonathan Kaplan, MD

- Selective Hypometabolism in the Inferior Frontal Lobe in Depressed Patients with Parkinson's Disease Helen S. Mayberg, MD, Sergio E. Starkstein, MD, Bernard Sadzot, MD, Thomas Preziosi, MD, Paula L. Andrezejewski, MS, Robert F. Dannals, PhD, Henry N. Wagner, Jr. MD. and Robert G. Robinson, MD
- 65 The Role of Plasmapheresis in Childhood Guillain-Barré Syndrome Mark A. Epstein, MD, and John T. Sladky, MD
- 70 Macrophages But Not Schwann Cells Express Ia Antigen in Experimental Autoimmune Neuritis Beate Schmidt, MD, Guido Stoll, MD, Hans-Peter Hartung, MD, Kurt Heininger, MD, PhD, Bärbel Schäfer, PhD, and Klaus V. Toyka, MD
- 78 The Accuracy of Bedside Neurological Diagnoses Marc I. Chimowitz, MD, Eric L. Logigian, MD, and Louis R. Caplan, MD

Editorial

86 Strategy, Tactics, and Accuracy in **Neurological Evaluation** William M. Landau, MD

Brief Communications

- Chronic Encephalitis, Epilepsy, and Cerebrovascular Immune Complex Deposits John M. Andrews, MD, Joel A. Thompson, MD, Theodore J. Pysher, MD, Marian L. Walker, MD, and M. Elizabeth Hammond, MD
- 91 DNA Cytosine Methylation in Brain of Patients with Alzheimer's Disease Netanel G. Schwob, MD, Josephine Nalbantoglu, PhD Kenneth E. M. Hastings, PhD, Tom Mikkelsen, MD. and Neil R. Cashman, MD
- 94 Tissue Distribution and Transmission of Mitochondrial DNA Deletions in Mitochondrial Myopathies M. Zeviani, MD, C. Gellera, BSc, M. Pannacci, BSc, G. Uziel, MD, A. Prelle, MD, S. Servidei, MD, and S. DiDonato, MD
- 97 Dissociated Neglect Behavior Following Sequential Strokes in the Right Hemisphere Kirk R. Daffner, MD, Geoffrey L. Abern, MD, PhD, Sandra Weintraub, PhD, and M-Marsel Mesulam, MD

- 101 Positron Emission Tomography in Shy-Drager Syndrome Mobit H. Bhatt, MD, DM, Barry J. Snow, MBChB, FRACP, W. R. Wayne Martin, MD, FRCPC, Sandra Cooper, RN, and Donald B. Calne, DM, FRCP, FRCPC
- 103 Rhinocerebral Mucormycosis: Management and Survival After Carotid Occlusion Steven L. Galetta, MD, Allan E. Wulc, MD, Herbert I. Goldberg, MD, Charles W. Nichols, MD, and Joel S. Glaser, MD

Letters

- 108 Atherosclerosis and Stroke William C. Taylor, MD, and William M. Landau, MD
- 108 Reply
 Frank M. Yatsu, MD, Kasturi Ranganna, PhD,
 Rita Alam, PhD, Juergen Kraus,
 Thomas DeGraba, MD, and Marc Fisher, MD
- 109 Skin Biopsy Is Useful for Diagnosis of Infantile Neuroaxonal Dystrophy C. Ceuterick, PhD, and J. J. Martin, MD, PhD

- 110 Is Juvenile Myoclonic Epilepsy an Autosomal Recessive Disease? David A. Greenberg, PhD, Martina Durner, MD, Antonio V. Delgado-Escueta, MD, and Dieter Janz, MD
- 110 Reply
 Chrysostomos P. Panayiotopoulos, MD, PhD,
 and Tahir Obeid, MD
- 111 A Cautionary Note on the Potential Benefits of Striatal Dopamine Implants Ariel Y. Deutch, PhD, and Matthew H. During, MD
- 112 Desciency of Glutamate Dehydrogenase in Postmortem Brain Samples from Parkinsonian Putamen Jesse M. Cedarbaum, MD, K.-F. R. Sheu, PhD, Bradford J. Harding, John P. Blass, MD, PhD, France Javoy-Agid, PhD, and Yves Agid, MD

Regular Departments

113 Classification of Progressive Myoclonus Epilepsies and Related Disorders Marseille Consensus Group

NO 2 AUGUST 1990

Original Articles

- 117 Cholinergic Deficiency and Frontal Dysfunction in Parkinson's Disease Bruno Dubois, MD, Bernard Pillon, PhD, François Lhermitte, MD, and Yves Agid, MD, PhD
- 122 Posthypoxic Glucose Supplement Reduces
 Hypoxic-Ischemic Brain Damage in the
 Neonatal Rat
 Haruo Hattori, MD, and Claude G. Wasterlain, MD
- 129 Relation of Hyperglycemia Early in Ischemic Brain Infarction to Cerebral Anatomy, Metabolism, and Clinical Outcome Michael Kushner, MD, Patrizia Nencini, MD, Martin Reivich, MD, Mario Rango, MD, Dara Jamieson, MD, Franz Fazekas, MD, Robert Zimmerman, MD, John Chawluk, MD, Abass Alavi, MD, and Wayne Alves, PhD
- 136 Human Central Nervous System Primitive Neuroectodermal Tumor Expressing Nerve Growth Factor Receptors: CHP707m David L. Baker, MD, Usha Rani Reddy, PhD, Samuel Pleasure, Mattie Hardy, Marge Williams, Margaret Tartaglione, Jaclyn A. Biegel, PhD, Beverly S. Emanuel, PhD, Patrizia Lo Presti, MD, Barbara Kreider, PhD, John Q. Trojanouski, MD, PhD, Audrey Evans, MD, Amit R. Roy, PhD, Gita Venkatakrishnan, PhD, Jie Chen, MD, Alonzo H. Ross, PhD, and David Pleasure, MD

- 146 A Computer Simulation of Conduction Block: Effects Produced by Actual Block versus Interphase Cancellation Edward K. Rhee, BA, John D. England, MD, and Austin J. Sumner, MD
- 157 Galanin Immunoreactivity Is Increased in the Nucleus Basalis of Meynert in Alzheimer's Disease M. Flint Beal, MD, Usha MacGarvey, MS, and Kenton J. Swartz, BA
- 162 A Clinical Triad to Diagnose Paraneoplastic Retinopathy Daniel M. Jacobson, MD, Charles E. Thirkill, PhD, and Stuart J. Tipping, MD
- 168 Soluble Interleukin-2 Receptors in Cerebrospinal Fluid from Individuals with Various Neurological Disorders

 Smita D. Kittur, MD, Dilip S. Kittur, MD, Timothy T. Soncrant, MD, Stanley I. Rapoport, MD, Wallace W. Tourtellotte, MD, James E. Nagel, MD, and William H. Adler, MD

Brief Communications

174 Ubiquitin Immunoreactivity in Kuru Plaques in Creutzfeldt-Jakob Disease Toshibiko Suenaga, MD, Asao Hirano, MD, Josefina F. Llena, MD, Hanna Ksiezak-Reding, PhD, Shu-Hui Yen, PhD, and Dennis W. Dickson, MD

- 177 Multiple Sclerosis Is Prevalent in the Zoroastrians (Parsis) of India Noshir H. Wadia, MD (Bom), FRCP (London), and Kailash Bhatia, MD, DM (Neurology)
- 180 Middle Cerebral Artery Strokes Causing Homonymous Hemianopia: Positron Emission Tomography Motobiro Kiyosawa, MD, Thomas M. Bosley, MD, Michael Kushner, MD, Dara Jamieson, MD Abass Alavi, MD, and Martin Reivich, MD
- 183 Vasoactive Peptide Release in the Extracerebral Circulation of Humans During Migraine P. J. Goadsby, MD, PhD, L. Edvinsson, MD, PhD, and R. Ekman, MD
- 187 Relapse of Infant Botulism Tracy A. Glauser, MD, Henry C. Maguire, MD, and John T. Sladky, MD
- 190 Motor Neuron Disease in a Patient with a Monoclonal IgMk Directed against GM1, GD1b, and High-Molecular-Weight Neural-Specific Glycoproteins E. Nobile-Orazio, MD, G. Legname, PhD, R. Daverio, MD, M. Carpo, MD, A. Giuliani, PhD, S. Sonnino, PhD, and G. Scarlato, MD

Letters

- 195 HLA-DR Antigens in Kleine-Levin Syndrome F. Visscher, MD, A. R. van der Horst, and L. M. E. Smit. MD
- 195 Molecular Mimicry and Lyme Borreliosis Leonard H. Sigal, MD
- 196 Reply Hans Lassman, MD

- 196 Oligoclonal Bands in the Cerebrospinal Fluid of Post-Poliomyelitis Muscular Atrophy Marinos Dalakas, MD
- 197 Reply Edgar F. Salazar-Grueso, MD, Luigi M. E. Grimaldi, MD, Raymond P. Roos, MD, Renata Variakojis, BA, Burk Jubelt, MD, and Neil R. Cashman, MD
- 198 Nicotine and Tobacco-induced Nystagmus Patrick A. Sibony, MD, Craig Evinger, PhD, Karen Manning, PhD, and John J. Pellegrini, BS
- 199 Capsaicin for the Treatment of Pain in Guillain-Barré Syndrome Joel C. Morgenlander, MD, Barrie J. Hurwitz, MD, and E. Wayne Massey, MD

Regular Departments

- 200 Books
 - 115th Annual Meeting of the American **Neurological Association**
- 203 Program
- 218 Abstracts
 - Third Annual Meeting of the Society for Experimental Neuropathology
- Program
- 286 Abstracts
 - Fourth Annual Symposia Co-sponsored by the Parkinson Study Group and the Movement **Disorder Society**
- 294 **Programs**
- Abstracts 295

NO 3 SEPTEMBER 1990

Original Articles

- 303 Stroke in Pediatric Acquired **Immunodeficiency Syndrome** Yong D. Park, MD, Anita L. Belman, MD, Tae-Seung Kim, MD, Katsubiro Kure, MD, Josefina F. Llena, MD, George Lantos, MD, Larry Bernstein, MD, and Dennis W. Dickson, MD
- 312 Myasthenic Thymus and Thymoma Are Selectively Enriched in Acetylcholine Receptor-reactive T Cells N. Sommer, MD, N. Willcox, PhD, G. C. Harcourt, PhD, and J. Newsom-Davis, MD
- 320 Auras and Subclinical Seizures: Characteristics and Prognostic Significance Michael R. Sperling, MD, and Michael J. O'Connor, MD

- 329 Increased MEPP Frequency As an Early Sign of Experimental Immune-mediated Motoneuron Disease Jesús García, MD, Jozsef I. Engelbardt, MD, Stanley H. Appel, MD, and Enrico Stefani, MD, PbD
- 335 Anoxic Injury of Mammalian Central White Matter: Decreased Susceptibility in Myelin-deficient Optic Nerve Stephen G. Waxman, MD, PhD, Peter K. Davis, BS, Joel A. Black, PhD, and Bruce R. Ransom, MD, PhD
- 341 Substantia Nigra: A Site of Action of Muscle Relaxant Drugs Lechoslaw Turski, MD, PhD, Thomas Klockgether, MD, Michael Schwarz, MD, PhD, Waldemar A. Turski, MD, PhD, and Karl-Heinz Sontag, PhD

- 349 Polyneuropathy, Ophthalmoplegia, Leukoencephalopathy, and Intestinal Pseudo-obstruction: POLIP Syndrome Lynn T. Simon, MD, Dikran S. Horoupian, MD, Leslie J. Dorfman, MD, Michael Marks, MD, Maie Kaarsoo Herrick, MD, Philip Wasserstein, MD, and Marion E. Smith, PhD
- 361 Axonal Neuropathy with Monoclonal IgG
 Kappa That Binds to a Neurofilament Protein
 Raffaello Nemni, MD, Maria L. Feltri, MD,
 Raffaella Fazio, MD, Angelo Quattrini, MD,
 Isabella Lorenzetti, BD, Massimo Corbo, MD,
 and Nicholas Canal, DM
- 365 Major Histocompatibility Complex Antigen Expression in the Affected Tissues in Amyotrophic Lateral Sclerosis Lois A. Lampson, PhD, Pinky D. Kushner, PhD, and Raymond A. Sobel, MD
- 373 IgM Deposits at Nodes of Ranvier in a
 Patient with Amyotrophic Lateral Sclerosis,
 Anti-GM1 Antibodies, and Multifocal Motor
 Conduction Block
 Maria Santoro, MD, Florian P. Thomas, MD,
 Matthew E. Fink, MD, Dale J. Lange, MD,
 Antonino Uncini, MD, Nosbir H. Wadia, MD,
 Norman Latov, MD, PbD, and Arthur P. Hays, MD
- 378 Cerebral Circulation and Oxygen Metabolism Associated with Subclinical Periventricular Hyperintensity As Shown by Magnetic Resonance Imaging Kenichi Meguro, Jun Hatazawa, Tatsuo Yamaguchi, Masatoshi Itoh, Taiju Matsuzawa, Shuichi Ono, Hidemitsu Miyazawa, Takashi Hishinuma, Kazuhiko Yanai, Yasuyoshi Sekita, and Kenji Yamada

Brief Communications

- 384 Drop Attacks with Meniere's Syndrome R. W. Baloh, MD, K. Jacobson, BA, and T. Winder, MD
- 387 Electroencepnalography Laboratory Diagnosis of Prolonged QT Interval Sidney M. Gospe, Jr, MD, PhD, and Andrew J. Gabor, MD, PhD
- 390 Spinal Cord Compression with Paraplegia in Xanthomatosis Due to Normocholesterolemic Sitosterolemia

 I. Hatanaka, MD, H. Yasuda, MD, H. Hidaka, MD, N. Harada, MD, M. Kobayashi, MD, H. Okabe, MD, K. Matsumoto, MD, S. Hukuda, MD, and Y. Shigeta, MD
- 393 Recurrent Seizures in Children with Sbigella-associated Convulsions
 E. Lahat, MD, Y. Katz, MD, T. Bistritzer, MD, G. Eshel, MD, and M. Aladjem, MD

Letters

396 Ergotamine Headache Mistaken for Temporal Arteritis Jacqueline M. S. Winterkorn, PhD, MD, Jeffrey G. Odel, MD, and Myles M. Bebrens, MD

Regular Departments

- 397 Books
 - 19th Annual Meeting of the Child Neurology Society
- 400 Program
- 411 Abstracts

NO 4 OCTOBER 1990

Editorial

475 Neurological Complications of Open Heart Surgery Sid Gilman, MD

Original Articles

- Brain Microemboli During Cardiac Surgery or Aortography
 D. M. Moody, MD, M. A. Bell, DPhil,
 V. R. Challa, MD, W. E. Johnston, MD, and D. S. Prough, MD
- 487 Methods for Estimating the Number of Motor Units in Human Muscles Richard B. Stein, DPhil, and Jaynie F. Yang, PhD
- 496 Motor Unit Numbers and Contractile Properties after Spinal Cord Injury Jaynie F. Yang, PhD, Richard B. Stein, DPhil, Jack Jhamandas, MD, PhD, and Tessa Gordon, PhD
- 503 Synaptic Transmission in Human Neocortex Removed for Treatment of Intractable Epilepsy in Children
 Jean-Pierre Wuarin, MD,
 Yang In Kim, PhD,
 Carlos Cepeda, PhD,
 Jeffrey G. Tasker, PhD,
 John P. Walsh, PhD,
 Warwick J. Peacock, MD,
 Nathaniel A. Buchwald, PhD,
 and F. Edward Dudek, PhD
- 512 Treatment of Spasticity with Botulinum Toxin:
 A Double-Blind Study
 Barry J. Snow, MB CbB, FRACP,
 Joseph K. C. Tsui, MB, MRCP, FRCPC,
 Mobit H. Bbatt, MD, DM,
 Micbael Varelas, FRCPC,
 Stanley A. Hashimoto, FRCPC,
 and Donald B. Calne, DM, FRCP, FRCPC

- 516 Hypoglycemia Alters Striatal Amino Acid Efflux in Perinatal Rats: An In Vivo Microdialysis Study Faye S. Silverstein, MDCM, Jennifer Simpson, BA, and Kevin E. Gordon, MD
- 522 Peripheral Neuropathy Associated with Eosinophilia-Myalgia Syndrome T. D. Heiman-Patterson, MD, S. J. Bird, MD, G. J. Parry, J. Varga, MD, M. E. Shy, MD, N. W. Culligan, MD, L. Edelsohn, MD, G. T. Tatarian, MD, M. P. Heyes, MD, C. A. Garcia, and A. J. Tahmoush, MD
- 529 Adult Phosphorylase b Kinase Deficiency Paula R. Clemens, MD, Masabiko Yamamoto, MD, and Andrew G. Engel, MD
- 539 NMDA Antagonists Potentiate Antiparkinsonian Actions of L-Dopa in Monoamine-depleted Rats Thomas Klockgether, MD, and Lechoslaw Turski, MD, PhD
- 547 Differing Patterns of Striatal ¹⁸F-Dopa Uptake in Parkinson's Disease, Multiple System Atrophy, and Progressive Supranuclear Palsy D. J. Brooks, MD, V. Ibanez, MD, G. V. Sawle, MRCP, N. Quinn, MD, A. J. Lees, MD, C. J. Mathias, MD, R. Bannister, MD, C. D. Marsden, FRS, and R. S. J. Frackowiak, MD
- 556 Cerebrospinal Fluid Neopterin in Human Immunodeficiency Virus Type 1 Infection Bruce J. Brew, MB, FRACP, Ravi B. Bballa, PhD, Morris Paul, PhD, H. Gallardo, MS, Justin C. McArthur, MBBS, Morton K. Schwartz, PhD, and Richard W. Price, MD
- 561 α1-Antichymotrypsin as a Possible Biochemical Marker for Alzheimer-Type Dementia Etsuro Matsubara, MD, Shunsaku Hirai, MD, Masakuni Amari, MD, Mickio Shoji, MD, Haruyasu Yamaguchi, MD, Koichi Okamoto, MD, Koji Ishiguro, MD, Yasuo Harigaya, MD, and Katsumi Wakabayashi, PhD
- Failure of Nine-Month Phenobarbital Administration to Reverse Amygdaloid-kindled Seizure Susceptibility in Cats Toshio Hiyoshi, MD, and Juhn A. Wada, MD

Brief Communications

- 574 HTLV-I Sequences Are Not Detected in Peripheral Blood Genomic DNA or in Brain cDNA of Multiple Sclerosis Patients Jorge R. Oksenberg, PhD, Renato Mantegazza, MD, Koichiro Sakai, MD, Claude C. A. Bernard, PhD, and Lawrence Steinman, MD
- 577 Aggravation of Myasthenia Gravis by Erythromycin Eugene F. May, MD, and Preston C. Calvert, MD

- 579 Human Immunodeficiency Virus
 (HIV)-associated Myopathy:
 Immunocytochemical Identification of an HIV
 Antigen (gp 41) in Muscle Macrophages
 David A. Chad, MD, Thomas W. Smith, MD,
 Andrew Blumenfeld, MD, Patrick G. Fairchild, MD,
 and Umberto DeGirolami, MD
- 582 Effect of Digitalis on Clinical Symptoms and Conduction Variables in Patients with Multiple Sclerosis

 Ryuji Kaji, MD, PhD, Leo Happel, PhD, and Austin J. Sumner, MD
- 585 Familial Creutzfeldt-Jakob Disease without Periodic EEG Activity Gretchen E. Tietjen, MD, and Ivo Drury, MB BCh

Letters

- 589 4-Aminopyridine in Multiple Sclerosis
 C. H. Polman, MD, PhD,
 H. A. M. van Diemen, MD,
 M. M. M. M. van Dongen, J. C. Koetsier, MD, PhD,
 A. C. van Loenen, PhD,
 and H. K. van Walbeek, MD
- 589 Intraaxial Divisional Oculomotor Nerve Paresis Suggests Intraaxial Fascicular Organization A. Abdollab, MD, and G. S. Francis, MD
- 590 Cerebral Mycotic Aneurysms Are Rare in Infective Endocarditis Merrill C. Kanter, MD, and Robert G. Hart, MD
- 590 Reply
 John C. M. Brust, MD,
 P. C. Taylor Dickinson, MD,
 James E. O. Hughes, MD,
 and Robert N. N. Holtzman, MD
- 591 Driving and Alzheimer's Disease Paul Deiter, MD, and Sheldon Wolf, MD
- 591 Reply David A. Drachman, MD
- 592 Dopa-Responsive Parkinsonism with Normal 6[18F]-Fluorodopa Positron Emission Tomography Scans
 Anthony E. Lang, MD, and E. S. Garnett, MB
- 593 Reply
 E.Ch. Wolters, MD, C.-C. Huang, MD,
 C. Clark, PhD, R. F. Peppard, MD, J. Okada, MD,
 N.-S. Chu, MD, M. J. Adams, PhD,
 T. J. Ruth, PhD, D. Li, MD, and D. B. Calne, MD
- 593 Cabergoline: A Long-acting Dopamine Agonist in Parkinson's Disease G. Lera, MD, J. Vaamonde, MD, J. Muruzabal, LM, and J. A. Obeso, MD
- 594 Extracellular Amino Acids in Traumatic Spinal Cord Injury Anders Lehmann, PhD
- 594 Reply S. Scott Panter, PhD, and Alan I. Faden, MD

Regular Departments

596 Books

NO 5 NOVEMBER 1990

Neurological Progress

597 Large-Scale Neurocognitive Networks and Distributed Processing for Attention, Language, and Memory M-Marsel Mesulam, MD

Original Articles

- 614 A Comparison of Neurological, Metabolic, Structural, and Genetic Evaluations in Persons at Risk for Huntington's Disease Scott T. Grafton, MD, John C. Mazziotta, MD, PbD, Jorg J. Pahl, MD, Peter St. George-Hyslop, MD, Jonathan L. Haines, PbD, James Gusella, PbD, John M. Hoffman, MD, Lewis R. Baxter, MD, and Michael E. Phelps, PbD
- 622 Impairment of Sequences of Memory-guided Saccades after Supplementary Motor Area Lesions
 B. Gaymard, MD, C. Pierrot-Deseilligny, MD, and S. Rivaud
- 627 Guanidino Compounds That Are Increased in Cerebrospinal Fluid and Brain of Uremic Patients Inhibit GABA and Glycine Responses on Mouse Neurons in Cell Culture Peter P. De Deyn, MD, PhD, and Robert L. Macdonald, MD, PhD
- 634 Quadriceps Myopathy: Forme Fruste of Becker Muscular Dystrophy
 Nobubiko Sunohara, MD, Kiichi Arahata, MD, Eric P. Hoffman, PbD, Hitoshi Yamada, MD, Jin Nishimiya, MD, Eri Arikawa, MD, Misako Kaido, MD, Ikuya Nonaka, MD, and Hideo Sugita, MD
- 640 Noninvasive Detection of Occlusive Disease of the Carotid Siphon and Middle Cerebral Artery Juan Ley-Pozo, MD, and Erich Bernd Ringelstein, MD
- 648 Mild Senile Dementia of the Alzheimer Type:
 3. Longitudinal and Cross-Sectional Assessment
 Leonard Berg, MD, Deborah S. Smith, PhD,
 John C. Morris, MD, J. Philip Miller, AB,
 Engene H. Rubin, MD, PhD,
 Martha Storandt, PhD,
 and Lawrence A. Coben, MD.
- 653 Eyelid Movements before and after Botulinum Therapy in Patients with Lid Spasm Karen A. Manning, PhD, Craig Evinger, PhD, and Patrick A. Sibony, MD
- 661 Brain pH in Head Injury: An Image-guided ³¹P Magnetic Resonance Spectroscopy Study Mario Rango, MD, Robert E. Lenkinski, PhD, Wayne M. Alves, PhD, and Thomas A. Gennarelli, MD

- 668 Respiratory Failure and Unilateral Caudal Brainstem Infarction J. Bogonsslavsky, MD, R. Khurana, MD, J. P. Dernaz, MD, J. P. Hornung, PhD, F. Regli, MD, R. Janzer, MD, and C. Perret, MD
- 674 Dystrophin Analysis in Duchenne and Becker Muscular Dystrophy Carriers: Correlation with Intracellular Calcium and Albumin L. Morandi, MD, M. Mora, PhD, E. Gussoni, PhD, S. Tedeschi, PhD, and F. Cornelio, MD
- 680 Magnetic Motor-evoked Potentials in Epilepsy: Effects of the Disease and of Anticonvulsant Medication Andreas Hufnagel, MD, Christian E. Elger, MD, Werner Marx, and Anton Ising
- 687 Elevated Soluble Interleukin-2 Receptor Levels in Patients with Active Multiple Sclerosis Keiko Adachi, MD, Toshibide Kumamoto, MD, and Shukuro Araki, MD
- 692 Isolation of a Complementary DNA Clone Encoding an Autoantigen Recognized by an Anti-Neuronal Cell Antibody from a Patient with Paraneoplastic Cerebellar Degeneration Koichiro Sakai, MD, Dennis J. Mitchell, MS, Tetsuro Tsukamoto, MD, and Lawrence Steinman, MD
- 699 A Follow-up Study of Intractable Seizures in Childhood Peter R. Huttenlocher, MD, and Ronald I. Hapke, BA

Brief Review

706 Evoked Potential Studies in Neurological Diagnosis and Management Michael J. Aminoff, MD, FRCP

Brief Communications

- 711 Stiff-Man Syndrome: A GABAergic Autoimmune Disorder with Autoantigenic Heterogeneity F. Gorin, MD, PhD, B. Baldwin, BS, R. Tait, PhD, R. Pathak, MD, M. Seyal, MD, PhD, and E. Mugnaini, MD
- 714 Extended Levodopa Release from a Subcutaneously Implanted Polymer Matrix in Rats 3. A. Sabel, PbD, P. Dominiak, MD, W. Häuser, MA, M. J. During, MD, FRACP, and A. Freese, MD, PbD
- 717 Absence of Immunoreactive Enzyme Protein in Short-Chain Acylcoenzyme A Dehydrogenase Deficiency
 L. Farnsworth, BSc, I. M. Shepherd, PhD,
 M. A. Johnson, PhD, L. A. Bindoff, MBBS,
 and D. M. Turnbull, MD

720 Normal Dystrophin in McLeod Myopathy Adrian Danek, MD, Thomas N. Witt, MD, H. B. A. C. Stockmann, BSc, Barbara J. Weiss, BA, Donald L. Schotland, MD, and Kenneth H. Fischbeck, MD

Letters

- 723 Neuropathological Substrate of Dementia in Parkinson's Disease Kurt Jellinger, MD
- 724 Reply
 Suzanne de la Monte, MD, MPH,
 E. Tessa Hedley-Whyte, MD,
 and John H. Growdon, MD

- 724 The Electroretinogram in Alzheimer's Disease Vicki E. Pollock, PhD, and Lon S. Schneider, MD
- 725 Reply
 Barrett Katz, MD, Steve Rimmer, MD,
 Melville R. Klauber, PhD,
 and Robert Katzman, MD
- 725 Magnetoencephalographic Localization of Epileptic Foci Jean Gotman, PhD
- 726 Reply
 Riitta Hari, MScD,
 and Jari Tiihonen, MScD

NO 6 DECEMBER 1990

Original Articles

- 727 Developmental Dyslexia in Women: Neuropathological Findings in Three Patients Peter Humpbreys, MD, FRCP(C), Walter E. Kaufmann, MD, and Albert M. Galaburda, MD
- 739 Cerebrospinal Fluid Immune Complexes in Patients Exposed to Borrelia burgdorferi:
 Detection of Borrelia-specific and -nonspecific Complexes
 P. K. Coyle, MD, Steven E. Schutzer, MD,
 Anita L. Belman, MD, Lauren B. Krupp, MD,
 and Marc G. Golightly, PhD
- 745 In Vivo ¹H Spectroscopy of the Human Brain following Electroconvulsive Therapy Bryan T. Woods, MD, and Tak-Ming Chiu, PhD
- 750 Cerebral Glucose Hypermetabolism in Friedreich's Ataxia Detected with Positron Emission Tomography Sid Gilman, MD, Larry Junck, MD, Dorene S. Markel, MS, Robert A. Koeppe, PhD, and Karen J. Kluin, MS
- 758 The Glucose Transporter and Blood-Brain Barrier of Human Brain Tumors Christopher Guerin, MD, John Laterra, MD, PhD, Ralph H. Hruban, MD, Henry Brem, MD, Lester R. Drewes, PhD, and Gary W. Goldstein, MD
- 766 A Case-Control Study of Alzheimer's Disease Amy Borenstein Graves, PhD, Emily White, PhD, Thomas D. Koepsell, MD, MPH, Burton V. Reifler, MD, Gerald van Belle, PhD, Eric B. Larson, MD, MPH, and Murray Raskind, MD
- 775 Cerebellar and Frontal Hypometabolism in Alcoholic Cerebellar Degeneration Studied with Positron Emission Tomography Sid Gilman, MD, Kenneth Adams, PhD, Robert A. Koeppe, PhD, Stanley Berent, PhD, Karen J. Kluin, MS, Jack G. Modell, MD, Phillip Kroll, MD, and James A. Brunberg, MD

- 786 Normal Proprioceptive Trigeminal Afferents in Patients with Sjögren's Syndrome and Sensory Neuronopathy
 Josep Valls-Sole, MD, Francesc Graus, MD,
 Josep Font, MD, Adolf Pou, MD,
 and Eduard S. Tolosa, MD
- 791 Timing and Topography of Cerebral Blood Flow, Aura, and Headache during Migraine Attacks Jes Olesen, MD, Lars Friberg, MD, Tom Skybøj Olsen, MD, Helle E. Iversen, MD, Niels A. Lassen, MD, Allan R. Andersen, MD, and Agnete Karle, MD
- 799 Striatal Function in Normal Aging: Implications for Parkinson's Disease G. V. Sawle, MRCP, J. G. Colebatch, FRACP, A. Shah, BSc, D. J. Brooks, MD, C. D. Marsden, FRS, and R. S. J. Frackowiak, MD
- 805 Selective Reduction of Quisqualate (AMPA) Receptors in Alzheimer Cerebellum D. Dewar, PhD, D. T. Chalmers, PhD, A. Shand, BSc, D. I. Graham, MD, and J. McCulloch, PhD
- 811 MEG versus EEG Localization Test Using Implanted Sources in the Human Brain David Cohen, PhD, B. Neil Cuffin, PhD, Kazutomo Yunokuchi, MS, Roman Maniewski, PhD, Christopher Purcell, PhD, G. Rees Cosgrove, MD, John Ives, BSc, John G. Kennedy, MD, and Donald L. Schomer, MD
- 818 Effects of Treatment on Long-Term Survivors with Malignant Astrocytomas Joseph P. Imperato, MD, Nina A. Paleologos, MD, and Nicholas A. Vick, MD

Brief Review

823 Chemotherapy for Medulloblastoma/Primitive Neuroectodermal Tumors of the Posterior Fossa Roger J. Packer, MD

Brief Communications

- 829 General Assay for Phosphoproteins in Cerebrospinal Fluid: A Candidate Marker for Paraneoplastic Cerebellar Degeneration Samuel E. Gandy, MD, PhD, Jack A. Grebb, MD, Neal Rosen, MD, PhD, Katherine A. Albert, MD, PhD, Orrin Devinsky, MD, Hilary Blumberg, BS, Neil Anderson, MB, ChB, Jesse M. Cedarbaum, MD, Roger J. Porter, MD, Göran Sedvall, MD, Jerome B. Posner, MD, and Paul Greengard, PhD
- 833 Ataxia and Peripheral Neuropathy: A Benign Variant of Peroxisome Dysgenesis Mia MacCollin, MD, Darryl C. De Vivo, MD, Ann B. Moser, BA, and Margaret Beard, PbD
- 837 OKT3 Encephalopathy Anton E. Coleman, MD, and Douglas J. Norman, MD

Letters

839 Baclofen Therapy May Be Associated with Chorea in Alzheimer's Disease Howard A. Crystal, MD

- 839 Phosphorus Magnetic Resonance Spectroscopy of Brain in Mitochondrial Cytopathies Paul M. Matthews, MD, D Phil, and Douglas L. Arnold, MD, FRCP(C)
- 840 Reply
 Scott M. Eleff, MD, Peter B. Barker, D Phil,
 Steven J. Blackband, PhD, John C. Chatham, D Phil,
 R. Nick Bryan, MD, PhD, and Orest Hurko, MD
- 840 Sleep-related Focal Motor Seizures in Bilateral Central Macrogyria Giovanni Ambrosetto, MD, and Carlo Alberto Tassinari, MD
- 841 Reply
 Frederick Andermann, MD, Ruben Kuzniecky, MD,
 Donatella Tampieri, MD, and Andre Palmini, MD
- 842 Neuritis of the Ophthalmic Branch of the Trigeminal Nerve as Isolated Manifestation of Leptomeningeal Carcinomatosis Rafael Leon, MD

Indexes to Volume 28

- 845 Author Index
- 855 Subject Index

Regular Departments

843 Books

